

UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF NEW YORK

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CAROL S. MARCELLIN, individually, and as Co-Administrator of the Estate of Charles E. Hollowell, deceased, and JESSICA HOLLOWELL-McKAY, as Co-Administrator of the Estate of Charles E. Hollowell, deceased,

Plaintiffs,

v.

HP, INC., and STAPLES, INC.,

Defendants.

**Civ. No. 1:21-cv-00704-JLS**

**PLAINTIFF'S OPPOSITION TO MOTION  
TO EXCLUDE DR. MARTIN**

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### III. INTRODUCTION

Consistent with Defendant's other motions, HP asserts facts that are untrue, and takes various statements out-of-context to misrepresent Dr. Martin's qualifications, opinions and the sources on which he properly relies. While Defendant's lack of precision risks misleading the Court, a close look at Dr. Martin's qualifications and opinions will show that Dr. Martin both is qualified to and reliably opines about battery thermal runaway, battery authentication systems generally, specifically that Defendant could have but did not authenticate the battery here, and that doing so would have prevented the fire. Defendant argues for the exclusion of three opinions—those involving “computer design and programming,” Doc. 67-1, p. 10 (point A), “thermal runaway temperatures,” *id.* at 11 (point B.1), and “computer authentication,” *id.* at 15 (point B.2), but has moved to preclude all of Dr. Martin's opinions. Even if Defendant is correct regarding one or more of the opinions actually challenged (it is not), Dr. Martin's opinions about the foreseeability of battery replacement, industry knowledge of counterfeit battery use, the lack of safety features, and how those safety features would have prevented the fire, have not been meaningfully challenged, and should be allowed. *See* Doc. 67-1, pp. 5-6 (summarizing Dr. Martin's opinions). Defendant also does not meaningfully challenge the opinions in Dr. Martin's rebuttal report regarding the effects of thermal runaway. Doc. 67-5, pp. 8-19.

### IV. ARGUMENT

#### A. Dr. Martin is qualified to offer all of his opinions.

Defendant scatters its arguments about Dr. Martin's qualifications in various places, claiming that Dr. Martin has purportedly not done several specific things but making no effort to explain why they are necessary qualifications for the opinions being offered. Defendant argues Dr. Martin is not qualified: “to make offer [sic] opinions concerning computer design and programming science”; Doc. 67-1, p. 10; *id.* at 4; because “he has no education, training, or

professional experience in notebook computer design or manufacture, or an expert in human factors or warnings”; *id.* at 6, 10; because he has “not published any peer-reviewed articles about notebook computers”; *id.*; because he is purportedly unaware of “standards or guides concerning warnings” related to laptop batteries; *id.* at 10-11; and, finally, that he purportedly has “no familiarity with Underwriters Laboratory standards for notebook computers.”

These arguments fail for two reasons. *First*, Defendant has not explained how any of the above renders Dr. Martin unqualified to render the opinions he actually offers. Defendant has not challenged Dr. Martin’s qualifications regarding his:

- Experience with battery lifespans (opinion “A”). Doc. 67-3, p. 21 (“it was foreseeable and likely, that a replacement battery pack would be utilized during the anticipated lifespan of the device.”).
- Industry knowledge of counterfeit batteries (opinion “B”). *Id.* (“it was known within the industry that replacement battery packs . . . were counterfeited.”).
- Experience with the thermal properties of batteries (opinions “C,” and rebuttal report). *Id.* at 22 (“The fire . . . was caused by cell overcharge or overvoltage . . . prompting a thermal runaway reaction.”); Doc. 67-5, p. 16 (“the evidence is entirely consistent with cell-level thermal runaway occurring internally from an overcharge, overvoltage and/or overtemperature condition in a cell”).
- Experience with battery pack safety features (opinions “D” and “E”). Doc. 67-3 at 22 (“The unauthorized battery pack . . . lacked overcharge, overvoltage, and overtemperature safety features.”); *id.* at 23 (“Had the . . . safety features specified by HP for this battery pack been functioning, thermal runaway and the resultant fire would not have occurred.”).

- Experience with battery authentication systems (opinion “F”). *Id.* at 24 (“The subject laptop was defectively designed in that it lacked any battery authentication system or other design that would have prevented the user from unknowingly operating the subject laptop with an unauthorized battery pack.”).

Looking specifically at Dr. Martin’s battery authentication opinions further illustrates the mismatch between the opinions Dr. Martin will offer and the experience Defendant claims Dr. Martin lacks. He is not opining about “user warnings,” but about designs that could have, but failed to “prevent or discourage” use of unauthorized battery packs. *Id.*; *see also id.* (design defective because it could have “detected the unauthorized battery”); *id.* (design defective because it “encouraged counterfeiters” for its batteries “because there was no added cost” necessary to defeat an authentication system); *id.* at 24-25 (design defective because it failed to “disconnect power to the battery pack using the internal controller”); *id.* at 25 (Defendant could have sealed battery pack to prevent replacement without qualified service).<sup>1</sup> Dr. Martin is not opining about laptop safety testing or battery certification, which would be relevant to Underwriters Laboratory standards, but “the relationship of [the] battery to the laptop.” Doc. 67-4, p. 50 (Martin Tr., 3/7/25 at 197:3-6).<sup>2</sup>

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<sup>1</sup> While Dr. Martin stated that Defendant “did not incorporate any warning system for the user that an unauthorized battery pack was installed until 2019 when it implemented a pop-up message in its newly manufactured laptops,” *id.*, that does not render his opinion a warning opinion, nor require human factors expertise. Instead, the point of that statement is the opposite of what Defendant seems to claim. It was to illustrate that because Defendant did not have any on-screen warning, it should have detected and prevented use of unauthorized batteries to ensure a reasonably safe product.

<sup>2</sup> Defendant perhaps argues that Dr. Martin cannot opine as to battery authentication without “computer design and programming science” experience—the precise argument is unclear because other than claiming this lack of experience in a point header, Defendant does not link this purported deficiency with any particular opinion. Doc. 67-1, p. 10; *id.* at 4. To the extent battery authentication systems cannot be recommended without design and programming experience, Dr. Martin has that experience, as explained in more detail below. And while some authentication schemes include encryption algorithms that may be implemented in software or firmware, not all of them do. *See Doc. 67-5, pp. 17-18 (Martin rebuttal report).*

*Second*, Defendant's challenge to Dr. Martin's qualifications fails because Dr. Martin has the requisite experience. "To determine whether a witness qualifies as an expert, courts compare the area in which the witness has superior knowledge, education, experience, or skill with the subject matter of the proffered testimony." *U.S. v. Tin Yat Chin*, 371 F.3d 31, 40 (2d Cir. 2004) (citation omitted). "Qualification may be based on a broad range of knowledge, skills, and training." *In re Mirena IUD Prods. Liab. Litig.*, 169 F. Supp. 3d 396, 412 (S.D.N.Y. 2016) (internal quotation omitted). "Generally speaking, expert qualifications are liberally construed." *Singleton v. Fifth Generation, Inc.*, No. 5:15-CV-474 (BKS/TWD), 2017 WL 5001444, at \*3 (N.D.N.Y. Sept. 27, 2017) (quoting *Rondout Valley Cent. Sch. Dist. v. Coneco Corp.*, 321 F. Supp. 2d 469, 474 (N.D.N.Y. 2004)); see also *U.S. v. Brown*, 776 F.2d 397, 400 (2d Cir. 1985) (in assessing whether a proposed expert is "qualified," the trial judge should remember the "liberal[ ] purpose" of Fed. R. Evid. 702, and remain "flexibl[e]" in evaluating the proposed expert's qualifications).

For example, Dr. Martin has programming experience. He has programmed over the IEEE 488 bus (an Institute for Electrical and Electronics Engineers standard and precursor protocol to the Universal Serial Bus—or USB—standard for communications and control between computers and peripherals). Doc. 67-4, p. 22 (Martin Tr., 3/7/25 at 84:9-23). He is familiar with the Secure Hash Algorithm-1 (SHA-1), which Texas Instruments recommended for authenticating battery packs in 2005. *Id.* at 39 (Martin Tr., 3/7/25 at 151:10-151); *id.* at 37-38 (Martin Tr., 3/7/25 at 143:1-146:21) (e.g.: "If properly implemented. It's extremely difficult because the possible responses are, as I say below, something like 2 to the 160 power. So it's extremely difficult to break that"). As detailed in his declaration, **Exhibit A**, he has "40+ years of experience in computer programming, including taking formal courses." Martin Decl., ¶ 4. He programmed computers in graduate school to collect and analyze data. . . "that included ten of thousands of lines of code."

*Id.* He regularly programs excel, and has taught courses where students were required to wrote programs to analyze data. *Id.* at ¶ 5. The software written by Dr. Martin that used the communication protocol described above required an elaborate handshake protocol, which is a form of authentication. *Id.* at ¶ 6. Dr. Martin regularly deals with issues of authentication that arise between computers and equipment, including “impedance spectrometers, glove boxes, differential scanning calorimeters, Raman spectrometers, and infrared spectrometers.” *Id.* at ¶ 7.

Dr. Martin also has experience in the design, manufacture, and research of batteries, including lithium-ion and newer materials that will “solve the safety problems and energy density problems of lithium-ion”. *Id.* at 8 (Martin Tr., 3/7/25 at 26:4-29:6) (e.g.: experience includes “battery design and battery development and battery testing for patents and publications . . . But I also work with companies and we’re designing battery materials and battery cells and testing those for companies.”). He has extensive peer-review publications about lithium-ion batteries. *See* Doc. 67-3, pp. 26-106 (Dr. Martin *vita*).

Finally, Dr. Martin has extensive experience regarding the thermal properties of batteries. *Id.* He uses and tests batteries daily, including heating them in ovens and measuring temperature rise, using lithium-ion as a baseline. **Exhibit A** (Martin Decl.), ¶ 8. He regularly discusses battery characteristics in courses and research; a major aspect of which is “to develop new kinds of batteries that solve the thermal runaway and flammability of lithium-ion batteries.” *Id.* at ¶ 9. Through his teaching and research, he has experience about the thermal properties of various materials, “including heat flow, and how heat transfers from a room or space into and through materials.” *Id.* ¶ 10. Dr. Martin regularly makes calculations of the rate of temperature change of various materials. *Id.*

Dr. Martin did not rely on the safety certification testing from Underwriters Laboratories, but, again, Defendant does not explain why this is necessary. To the contrary, Defendant seems to misunderstand the purpose of the standards set by Underwriters Laboratories or the temperature cited (130° C). To pass the heating test, “a sample may not explode or ignite.” **Exhibit B**, UL, “Safety Issues for Lithium-Ion Batteries,” 2013, p. 8 (emphasis added) available at [https://code-authorities.ul.com/wp-content/uploads/2016/02/Safety\\_Issues\\_for\\_Lithium\\_Ion\\_Batteries1.pdf](https://code-authorities.ul.com/wp-content/uploads/2016/02/Safety_Issues_for_Lithium_Ion_Batteries1.pdf) (last visited June 5, 2025). That is, the purpose of the Underwriters Laboratory testing is to demonstrate that batteries subject to normal operating conditions are safe, including a wide safety margin. They should NOT experience thermal runaway until exposed to temperatures much higher (and for longer) than specified in safety certification testing. The temperature specified in one particular safety test is not a reliable basis to establish thermal runaway. Moreover, UL battery safety testing does not ensure a safe system: “product safety issues involving cell charging rates, discharging rates, and reverse charging may not be adequately addressed at the battery testing alone.” *Id.* at 10.

In short, Dr. Martin’s opinions are well within his areas of expertise. His “primary research includes the design, assembly, testing, and analysis of lithium ion batteries.” Doc. 67-3, p. 1. He has a Bachelor of Arts in Chemistry and a Doctor of Philosophy in physical chemistry. *Id.* He has researched and taught about lithium-ion batteries for over 40 years and has received funding totaling more than \$28 million. *Id.* He has been the Anson Marston Distinguished Professor in Engineering in the Department of Materials Science & Engineering at Indiana State University for more than a decade. *Id.* at 2. He has accrued more than 80,000 student-hours of teaching over 75 consecutive semesters, including advanced graduate students “pursuing PhD degrees in

Materials Science, Chemistry, and Physics,” etc. on courses related to the opinions offered in this case, specifically on “batteries, battery safety, and battery materials.” *Id.* at 1, 3. Dr. Martin has published more than 230 articles on battery materials based on his research on lithium-ion batteries. *Id.* at 3. He has consulted with more than 50 companies, including on lithium battery fires. *Id.* Dr. Martin meets these standards for the opinions he offers.

**B. Dr. Martin’s opinion regarding the external heating necessary to induce thermal runaway is reliable and based on an accurate assessment of Larsson’s “oven test” as well as Dr. Martin’s training and experience.**

Defendant makes several misstatements regarding Dr. Martin’s opinion about the external temperature required to induce thermal runaway in a battery. Dr. Martin opines that—in contrast to the Larsson oven test, which heated a battery without any packaging—the laptop battery at issue here was insulated by “at least three thermal barriers,” therefore, “for the cells to have reached the well documented internal thermal runaway temperature of about 200° C, the external temperature would need to be well above 300° C.” Doc. 67-5, pp. 3-4.

First, Dr. Martin is not “willful[ly] ignoran[t]” of lithium-ion battery thermal runaway temperatures. Doc. 67-1, p. 11 n. 3. As noted above, he opines that the thermal runaway temperature is “well documented” and “about 200° C.” Doc. 67-5, p. 3; *see also id.* at 2-3 (“The internal cell temperatures at which Stage II thermal runaway occurred for all 14 cells was also remarkably similar. This Stage II reaction occurred between 188°C and 205° C”) (emphasis added). Dr. Horn agrees with this. *Compare id.* (Martin rebuttal report) with Doc. 67-6, ¶ 8 (Horn report, stating “the Larsson Study found that all tested live cells underwent thermal runaway when externally heated to approximately 190 °C”).

Nor is this agreement limited to two statements in Dr. Martin’s rebuttal report. Defendant’s counsel specifically asked about this multiple times at Dr. Martin’s deposition, so they are well-

aware that Dr. Martin and Defendant's expert agree on this point. Doc. 67-4, p. 59 (Martin Tr., 3/7/25 at 231:2-5) ("Q. Is it possible to induce thermal runaway at those temperatures? A. At 200 degrees, it takes much longer, so it'd be more difficult."); *id.* at 62 (Martin Tr., 3/7/25 at 242:2-6) ("You know, typical cells will go into thermal runaway when heated above 200 degree Celsius. It takes a 300 degree oven to get it to that.") (emphasis added); *id.* at 242:16-20 (similar).

Second, Dr. Martin does not rely "solely" on the Larsson paper. Doc. 67-1, p. 12. Instead, Dr. Martin testified that he has experience specifically with the issue raised here: the heat-transfer properties a material like a triple-insulated battery. He testified his knowledge comprises, in addition to the Larsson study:

general knowledge of designing ovens, designing furnaces more generally, and their characteristics impact on temperatures of materials. We do a calculation in my lab. If the furnace temperature inside is one temperature, then you've got a body inside the furnace like a lithium-ion battery. What's the rate of increase of temperature that that body would reach based upon the furnace temperature? So I'm quite familiar with heating materials testing materials inside ovens and furnaces.

Doc. 67-4, p. 22 (Martin Tr., 3/7/25 at 83:18-84:4); *see also Exhibit A ¶¶ 8-10* (describing research on thermal properties of batteries and other materials). And even if the Larsson paper were his sole source of authority, this is not grounds for exclusion. *C.f. Amorgianos v Natl. R.R. Passenger Corp.*, 303 F3d 256, 266-67 (2d Cir. 2002) (expert testimony admissible "despite the fact that the expert 'could not point to a single piece of medical literature' that specifically supported the expert's opinion.") (quoting *McCullock v. H.B. Fuller Co.*, 61 F.3d 1038, 1043 (2d Cir. 1995)).

Even putting aside Defendant's incorrect assertions, the Larsson article supports Dr. Martin's conclusion that it would take longer for the laptop battery to reach thermal runaway than the batteries tested by Larsson *et al.* Defendant's expert concedes that the Larsson study "represents a generally-accepted academic study that can be relied upon in the field of lithium-

ion batteries.” Doc. 67-7, ¶ 7. Larsson showed that the battery temperature lagged the oven temperature by about 18 minutes. Doc. 67-6, p. 7 (Larsson figure 4, showing “temperature values from the battery . . . and from the two temperature sensors in the oven” over time.). The 18-minute lag in temperatures can be seen in Figure 1, below, which reproduces Figure 4 from the Larsson paper, and contains annotations (orange lines) showing that the oven reached 180° C after approximately 34 minutes, but the uninsulated batteries reached this temperature after approximately 52 minutes:

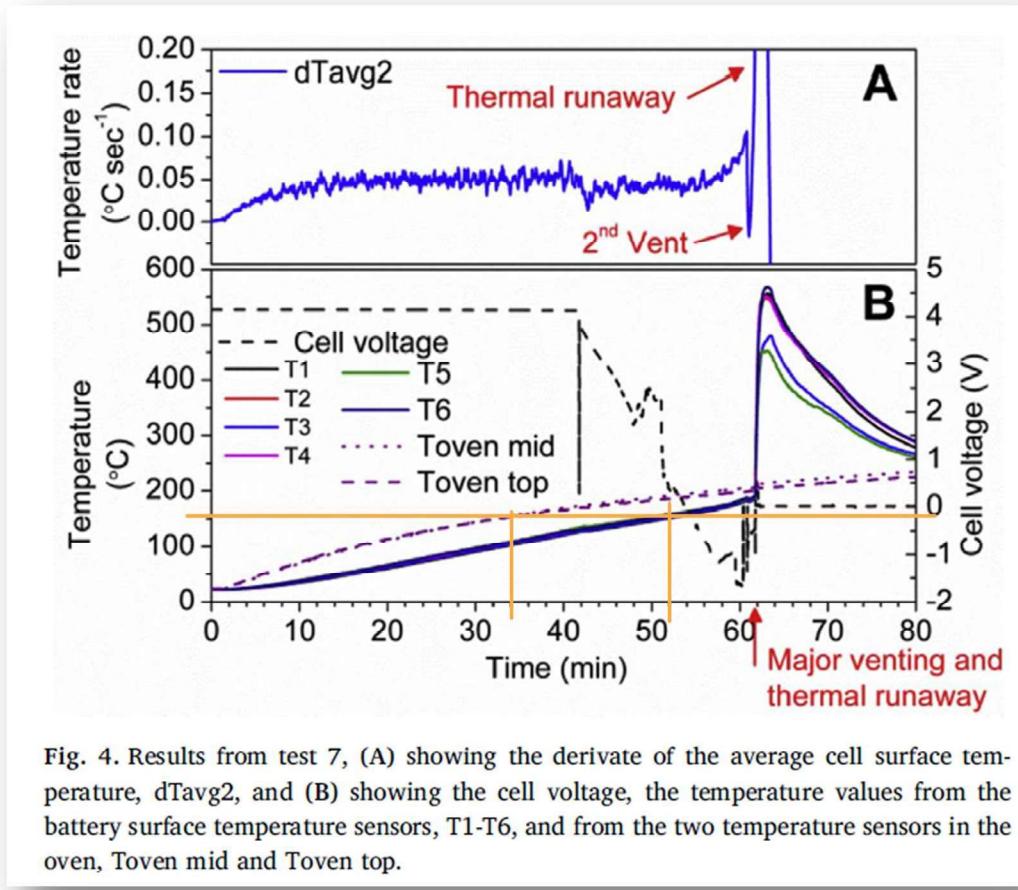


Fig. 4. Results from test 7, (A) showing the derivate of the average cell surface temperature,  $d\text{Tavg2}$ , and (B) showing the cell voltage, the temperature values from the battery surface temperature sensors, T1-T6, and from the two temperature sensors in the oven, Toven mid and Toven top.

**Fig. 1:** Reproduction of Larsson, Fig. 4, annotated with orange lines to illustrate temperature lag between oven temperature (dotted lines) and battery temperature (solid lines).

Both the office where the laptop was located and the oven in Larsson’s study started at ambient temperature. The batteries in the Larsson study were not insulated, while the laptop

battery here was insulated by at least three thermal barriers. The laptop battery temperature, therefore, would have lagged ambient temperature by a much longer time-period. Doc. 67-5, pp. 3-4; **Exhibit A** (Martin Decl., ¶ 11 (“the Larsson paper indicates that the time-constants of heat transfer within the oven and the battery surface are different. The batteries in the subject laptop heated up more slowly than in the oven used in the Larsson paper.”)).

And assuming for the sake of argument that the triple insulation here had no impact, the Larsson study shows that if an external fire caused thermal runaway, it would have had to have been raging at 187-194° C, *id.*, for at least 18 minutes before Ms. Marcellin observed the batteries exploding and—on Defendant’s theory that the fire did not start in the office—that it reached this temperature in multiple rooms (and presumably the hallway) through which Ms. Marcellin traveled multiple times before she saw the explosions. Defendant does not even attempt to explain why the bottom of the computer had not melted if the room had been hot enough to melt plastic and cause the insulated batteries to explode, or rule out the possibility that the dripping plastic on the laptop screen melted at a lower temperature because it was not ABS, or rule out the most likely explanation that the melting occurred after Ms. Marcellin observed the batteries exploding, while she was attempting to get help (after more time had passed, allowing the fire to generate more heat). It is Defendant’s expert’s opinions and theories that do not fit the facts of this case, as further explained in Plaintiff’s cross-motions.

**C. Dr. Martin’s opinion that battery authentication would have prevented the fire is based on his training and experience.**

Defendant appears to make two separate arguments under point heading 2, styled as a challenge to opinions about “notebook computer authentication.” *See* Doc. 67-1, pp. 14-15 (criticizing opinions regarding “elaborate security protocols”); *id.* at 16-17 (criticizing opinions purportedly about warnings). Plaintiff addresses the warnings challenge in point D, below.

Defendant argues that Dr. Martin does not have any basis for his opinion about “notebook computer authentication” because he has not identified any industry standard nor computers that used this authentication. *Id.* at 15. As with other complaints about Dr. Martin’s purported bases, Defendant again fails to explain why Dr. Martin must identify industry standards or use by other manufacturers to testify. Not only is this not required, but there is an industry standard here.

Defendant’s specification for the laptop at issue identified specific Texas Instruments “gas gauges” for use in authorized battery packs. Doc. 67-3, p. 15. Each of the identified Texas Instruments gas gauges “included the ability to authenticate using an SHA-1 algorithm.” *Id.* The Secure Hash Algorithm-1 (SHA1 or SHA-1) was in use by manufacturers to authenticate user-replaceable parts, such as printer cartridges in at least 2004. *Lexmark Intern., Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 530 (6th Cir. 2004). The algorithm “calculates a ‘Message Authentication Code’ based on data in the microchip’s memory. If the code calculated by the microchip matches the code calculated by the printer, the printer functions normally. If the two values do not match, the printer returns an error message and will not operate, blocking consumers from using toner cartridges that Lexmark has not authorized.” *Id.* It was published by the United States Department of Commerce’s National Institute of Standards and Technology in 1995. FIPS Pub 180-1, Secure Hash Standard (April 17, 1995), available at <https://csrc.nist.gov/pubs/fips/180-1/final> (last visited June 6, 2025). It was required “whenever a secure hash algorithm is required for federal applications,” and “is used by both the transmitter and intended receiver of a message in computing and verifying a digital signature,” so it had been in use for decades before Ms. Marcellin’s computer was made. *Id.*

Defendant repeatedly characterizes the proposed authentication system as “elaborate,” to imply that it might have been difficult for HP to use. Doc. 67-1, pp. 8, 14, 15. But this is neither

relevant nor true. Even if the algorithm is “elaborate,” Defendant makes no effort to explain why this would be relevant to the admissibility of Dr. Martin’s opinions. In any event, it is not difficult to implement. Not only was the algorithm in use for decades, including to authenticate user-replaceable electronics components, but Texas Instruments provided an application report explaining how the SHA-1 algorithm worked and how to implement simpler authentication schemes, such as identification-based and challenge and response-based. **Exhibit C**, Texas Instruments, Application Report SLUA346: Battery Authentication and Security Schemes (July 2005). As Texas Instruments described it in 2005: “counterfeit batteries may violate both mechanical and electrical safety requirements . . . . It is usually impossible for the consumer to determine the quality without making a purchase and possibly learning the hard way. . . . Adding simple and effective authentication technology to the portable system allows the OEMs [manufacturers] to ensure customer satisfaction and to protect their businesses. More importantly, safety is guaranteed throughout the life of the product.” *Id.*

With respect to the specific Texas Instruments gas gauges approved by Defendant, Texas Instruments reiterated in November 2005 that “Battery counterfeiting is a major problem confronting original equipment manufacturers (OEM) today,” and included the “highly sophisticated” SHA-1 algorithm “which requires little setup and development time and provides an effective, secure battery design.” **Exhibit D**, Texas Instruments, Application Report SLUA359: Using SHA-1 in bq20zxx Family of Gas Gauges (November 2005) (emphasis added)<sup>3</sup>.

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<sup>3</sup> The chips discussed in **Exhibit D** are the ones HP required battery manufacturers to use. It would have, therefore, required “little setup” to authenticate batteries, either with the SHA-1 algorithm, or the many other options discussed by Texas Instruments and Dr. Martin. **Exhibit C** (discussing identity-based, challenge and response-based, and sha1-based authentication methods); Doc. 67-3, p. 24 (discussing options, including secondary overtemperature detection, safety power disconnect, and sealed batteries); *id.* at 15, 107 (matching gas gauges specified by Defendant with the “bq20z??” family discussed by Texas Instruments in Exhibit D: models

Moreover, even if use of the algorithm was not “industry standard”, that is ground for cross-examination, not exclusion. *E.g. Cruz v. Kumho Tire Co., Inc.*, No. 8:10-CV-219 MAD/CFH, 2015 WL 2193796, at \*11 (N.D.N.Y. May 11, 2015) (expert opinion regarding alternative design for front truck bumper to prevent fuel tank breach held admissible although 1) not used by industry, 2) expert could not testify it “would have prevented” injury, and 3) prototype not tested. Admissible because design based on “industry studies” and had “concrete basis in reality”) (internal quotations and citation omitted); *Ramirez v. ITW Food Equip. Group, LLC*, 686 Fed. Appx. 435, 440 (9th Cir. 2017) (unpublished) (“the reliability of an expert’s theory turns on whether it can be tested not whether he has tested it himself. Wolfe’s alternative design was *capable* of being tested”) (internal quotation and citation omitted); *c.f. Keenan v. Mine Safety Appliances Co.*, No. CV-03-0710 TCP ARL, 2006 WL 2546551, at \*3 (E.D.N.Y. Aug. 31, 2006) (expert not required to make, test, or review proposed alternative design because it was available on the market).

New York product liability law does not require evidence that alternative designs were in use, but only that they are technologically feasible (which, as shown above, the designs proffered by Dr. Martin are). *Friedman v. Natl. Presto Industries, Inc.*, 566 F. Supp. 762, 764 (E.D.N.Y. 1983) (“Feasibility of alternatives in turn depends on the existence of safer designs that are within technological reach and could be substituted without adding expense or subtracting utility to an extent that would outweigh the gains in safety.”); *Rose v. Brown & Williamson Tobacco Corp.*, 10 Misc. 3d 680, 698 (N.Y. Sup. Ct. 2005) (“to meet the burden of proving the feasibility of the safer, alternative design a plaintiff must demonstrate the technological feasibility of the ‘design,’ not its

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bq20z40, bq20z45, bq20z70, bq20z75, bq20z70, bq20z75, bq20z90, and bq20z95, in Martin references 9-12).

commercial viability.”). To the extent Defendant disputes feasibility, it is also ground for cross-examination, not exclusion.

Defendant also implies (in the section titled “Background”) that Dr. Martin’s design opinions are speculative in part because he did not evaluate market conditions in 2010, and this is “the only relevant time,” relying on cases discussing manufacturer duties. Doc. 67-1, p. 7. Putting aside that this is not a valid basis to exclude expert testimony, Defendant’s reliance on these cases is misplaced. It is true that a manufacturer must ensure a safe product at the time it leaves the manufacturer’s control, but any laptop owner knows that laptop makers regularly provide software updates to their products, so the laptop at issue here did not leave Defendant’s “control” like the industrial products did in the cases cited. Defendant, here, could have made post-manufacture software modifications to the laptop to prevent injury, whereas that was not possible with industrial applications. *Hoover v. New Holland N. Am., Inc.*, 23 N.Y.3d 41, 47 (2014) (post-hold digger); *Amatulli by Amatulli v. Delhi Const. Corp.*, 77 N.Y.2d 525, 530 (1991) (swimming pool); *Robinson v. Reed-Prentice Div. of Package Mach. Co.*, 49 N.Y.2d 471, 476 (1980) (plastic injection molding machine); *Liriano v. Hobart Corp.*, 92 N.Y.2d 232, 236 (1998) (commercial meat grinder).

It is also true that a manufacturer can sometimes avoid liability after third-party modifications, but the key inquiry here is foreseeability. *Hoover* 23 N.Y.3d at 59 (“manufacturer . . . cannot *automatically* avoid liability on the basis that the safety device was removed post sale and not replaced. Such a broad rule would lessen the manufacturer’s duty to design effective safety devices that make products safe for their intended purpose and unintended yet reasonably foreseeable use.” (internal quotation and citations omitted); *Amatulli*, 77 N.Y.2d at 532 (“product must have been used for the purpose and in the manner . . . reasonably foreseeable”; foreseeability

inapplicable where third party “abuses product by consciously” disabling safety features); *Robinson*, 49 N.Y.2d at 480 (same); *Liriano*, 92 N.Y.2d at 238 (manufacturer not liable for substantial modifications, but is liable if product designed to “permit its use without a safety feature,” and injury occurs “as a result of removing the safety feature”). Here, Dr. Martin provided uncontested opinions that users would foreseeably replace batteries and that it was industry knowledge that counterfeit batteries were being sold. Doc. 67-3, p. 21. And Texas Instruments warned about this issue in 2005. **Exhibits C and D**. Thus, notwithstanding market conditions, it was foreseeable to Defendant that consumers would use counterfeit batteries, creating a safety issue.

Also in the “Background” section, Defendant takes issue with the fact that Dr. Martin did not test “these same security schemes he opines should have been used,” Doc. 67-1, p. 8, but fails to explain why such testing is necessary. Defendant cannot reasonably dispute that such schemes were used in the electronics industry, that Texas Instruments provided chips for their use with “little setup and development time,” and that Defendant required battery manufacturers to use those very same Texas Instruments chips. *Lexmark Intern., Inc.*, 387 F.3d at 530 (describing—in 2004—authentication used to prevent unauthorized ink cartridges in printers); **Exhibit D** (Texas Instruments Application Report, explaining “major problem” of “battery counterfeiting” and explaining bq20z?? family of gas gauges provides “effective, secure battery design” with “little setup and development time.”); Doc. 67-3, p. 15, 107 (Martin report, identifying gas gauges specified by Defendant). There is no authority for the proposition that an expert must “test” an established authentication protocol when admissible evidence confirms its use.

#### **A. Dr. Martin’s “warnings” opinion is reliable.**

Defendant maintains the following criticisms of Dr. Martin’s purported “warnings” opinion, split between the “Background” and point “2” sections: *First*, Dr. Martin did not “know”

if a warning about unauthorized batteries would be heeded, and did not talk to Ms. Marcellin about this or whether she “actually needed an on-screen warning.” *Id.* at 8, 16. *Second*, Dr. Martin did not know what had been done to the notebook computer. *Id. Third*, he did not rely on standards or guides regarding warnings. *Id. Fourth*, Dr. Martin purportedly relied “solely” on a Texas Instruments document. *Id.* at 16-17. *Fifth*, Dr. Martin offered “no scientific analysis of the benefits of alternative warnings” *Id.* at 17 (quoting *Nisanov v. Black & Decker (U.S.) Inc.*, No. 05 CIV. 5911 (BMC), 2008 WL 906708, at \*9 (E.D.N.Y. Apr. 3, 2008), *on reconsideration in part*, No. 05CIV.5911(BMC)(SMG), 2008 WL 2185910 (E.D.N.Y. May 23, 2008)). Again, Defendant does not explain why Dr. Martin should undertaken any of these activities.

As explained above, Dr. Martin mentioned the lack of warnings to make the point that 2019 is when Defendant finally provided battery authentication. Doc. 67-3, p. 24. Dr. Martin’s opinion is that battery authentication would have prevented counterfeit batteries and therefore avoided the fire. *See supra*, n. 2; Doc. 67-3, pp. 22-24. Moreover, the *Nisanov* case is distinguishable because, according to the opinion, the expert there merely “point[ed] out the importance of warnings.” 2008 WL 906708, at \*9. Here Dr. Martin opined that authentication (with or without a warning) would have prevented the fire, and that Defendant did not provide any on-screen warning until 2019. In any event, to the extent there is a question about whether an alternative warning would have been effective, that is a question of fact for the jury. *Urena v. Biro Mfg. Co.*, 114 F.3d 359, 366 (2d Cir. 1997) (“The adequacy of the instruction or warning is generally a question of fact to be determined at trial and is not ordinarily susceptible to the drastic remedy of summary judgment.”) (quotation and citations omitted); *Billiar v. Minnesota Min. and Mfg. Co.*, 623 F.2d 240, 247 (2d Cir. 1980) (“Under New York law, the jury does not need expert testimony to find a warning inadequate, but may use its own judgment considering all the circumstances.”).

**V. CONCLUSION**

For the reasons set forth above, Defendant's motion to exclude Steve Martin, PhD should be denied.

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